

# PLUG CONNECTIONS FOR MOBILE OPERATION WITH-OUT PUSH-TO-TALK.

TUNING PROCEDURE after an antenna, ground, power supply and microphone, or key have been connected to the transmitter is as follows.

- 1 - Switch POWER to OFF.
- 2 - Switch P.A.ON - P.A.OFF to P.A.OFF.
- 3 - Set bandswitch to desired band.
- 4 - Switch VFO - CRYSTAL to VFO.
- 5 - Set VFO dial to desired frequency.
- 6 - Switch Ig - Ip to Ig.
- 7 - Set LOADING control on 10.
- 8 - Switch POWER to ON.
- 9 - Operate key or push to talk switch. 2 to
- 10- Adjust DRIVE control for approximately 43 milliamperes.
- 11- Switch Ig - Ip to Ip.
- 12- Switch P.A.ON - P.A.OFF to P.A.ON.
- 13- Adjust PLATE TUNING for minimum plate current (Ip).
- 14- Adjust PLATE TUNING towards 2 until plate current increases to 100 milliamperes and readjust PLATE TUNING for minimum plate current at this operation until the plate current is 100 milliamperes or as high as possible if 100 can not be reached.

The same procedure as above should be followed for crystal control except that in step 4 above the VFO - CRYSTAL should be switched to CRYSTAL. Crystals may be in the 160 or 80 meter band for 80 meter operation. In 80, 40 or 20 meter band for 20 meter operation. And in the 40 or 20 meter band for 10 meter operation.

NOTE---When using the Model FSA-500 power supply a push-to-talk switch is not required as the power supply is equipped with a transmit - receive switch and all necessary connections are made in the plug and cable which are supplied.

## MULTI-ELMAC A-54/A-54H TRANSMITTER

### TUNING PROCEDURE:

After an antenna, ground, power supply and microphone or key have been connected to the transmitter, tuning procedure is as follows:

1. - Switch POWER to OFF.
2. - Switch P.A. ON-OFF to P.A. OFF.
3. - Set BANDSWITCH to desired band.
4. - Switch VFO - CRYSTAL to VFO.
5. - Set VFO DIAL to desired frequency.
6. - Switch METER SWITCH Ig - Ip to Ig.
7. - Set LOADING control to 10 on the dial.
8. - Switch POWER to ON.
9. - Operate KEY or MICROPHONE PUSH-TO TALK SWITCH.
10. - Adjust DRIVE control for 2.0 to 3.0 mA on METER.
11. - Switch METER SWITCH Ig - Ip to Ip.
12. - Switch PA OFF - PA ON to PA ON.
13. - Adjust PLATE TUNING for minimum plate current (Ip).
14. - Adjust LOADING toward 0 on the dial until plate current increases to 105 mA and readjust PLATE TUNING for minimum again. Repeat this operation until the minimum dip obtainable is 300 mA or as high as possible if 300 mA can not be reached.

The same procedure as listed above should be followed for crystal control except that in Step 4, above, the VFO - CRYSTAL switch should be placed in the CRYSTAL position. Crystal used may be in the 160 meter or 80 meter band for 80 meter operation; in the 80, 40 or 20 meter band for 20 meter operation; and in the 40 or 20 meter band for 10 meter operation.

**NOTE:** When using the Model PSA-500 power supply a push-to-talk switch is not required as the power supply is equipped with a TRANSMIT - RECEIVE switch and all necessary connections are made in the plug and cable which are supplied.

## **MULTI-ELMAC A-54/A-54H TRANSMITTER**

### **PLUG CONNECTIONS FOR MOBILE OPERATION (WITHOUT PUSH-TO-TALK)**

#### **POWER CONNECTOR PIN OUT:**

<b>PIN 1</b>	<b>Ground (Car body)</b>
<b>Pin 2</b>	<b>All modulator/audio filaments (jumper to pin 3)</b>
<b>Pin 3</b>	<b>Power on-off switch out and RF filaments</b>
<b>Pin 4</b>	<b>B+ High Voltage</b>
<b>Pin 5</b>	<b>no connection</b>
<b>Pin 6</b>	<b>Microphone Push-To-Talk (makes to ground) (also connects to MG and antenna relay coils)</b>
<b>Pin 7</b>	<b>+6 Volts from car battery (jumper to pin 8)</b>
<b>Pin 8</b>	<b>+6 Volts from car battery (jumper to pin 7)</b>

#### **MICROPHONE CONNECTOR PIN-OUT:**

##### **PL-68 TYPE 3 CIRCUIT PHONE JACK**

<b>SHIELD</b>	<b>GROUND</b>
<b>RING</b>	<b>CARBON MICROPHONE ELEMENT</b>
<b>TIP</b>	<b>Push-To-Talk switch (makes to ground)</b>

- SERVICE INFORMATION -

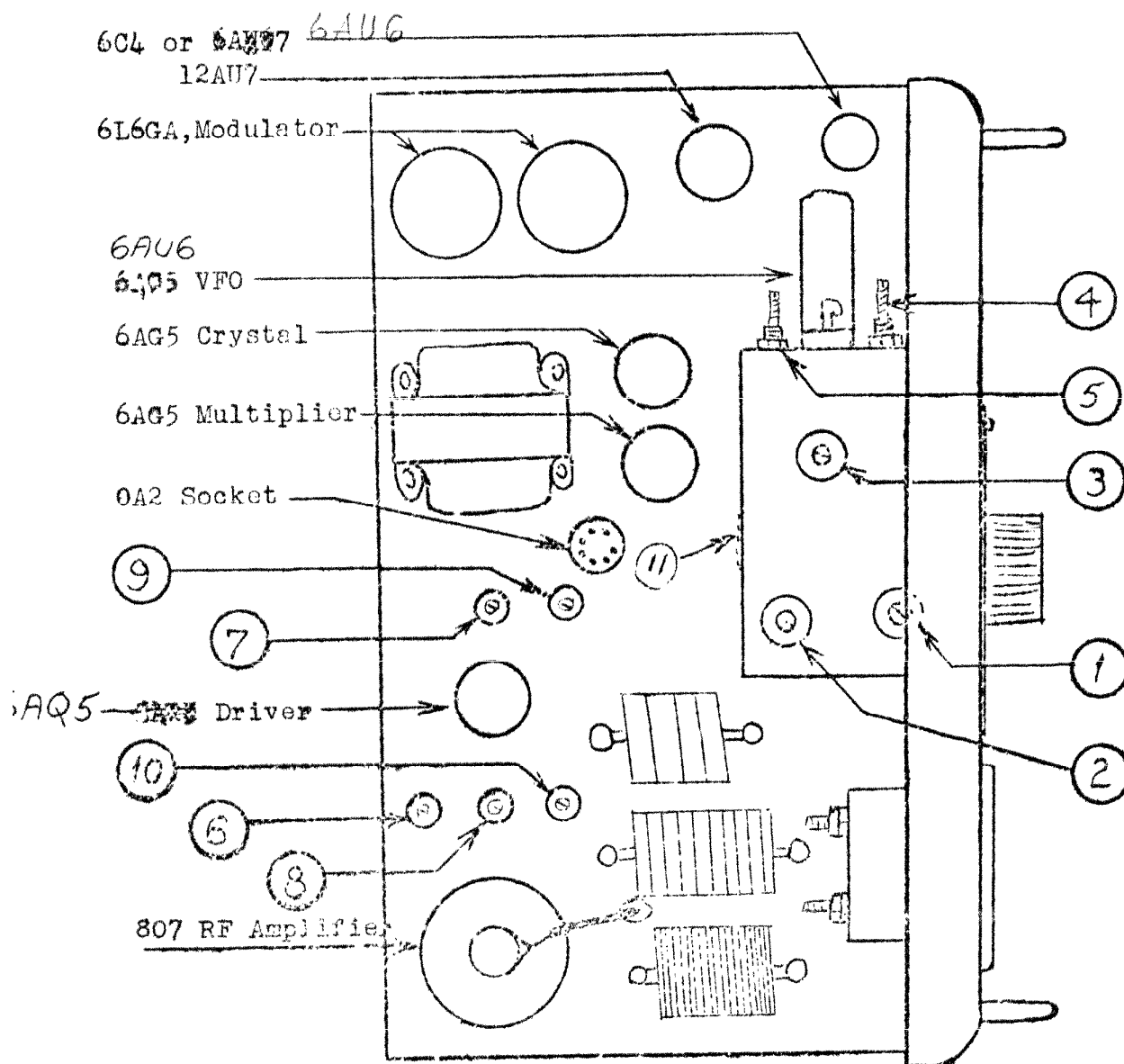
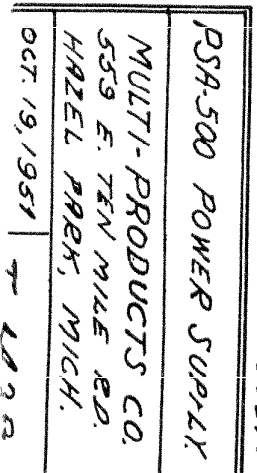


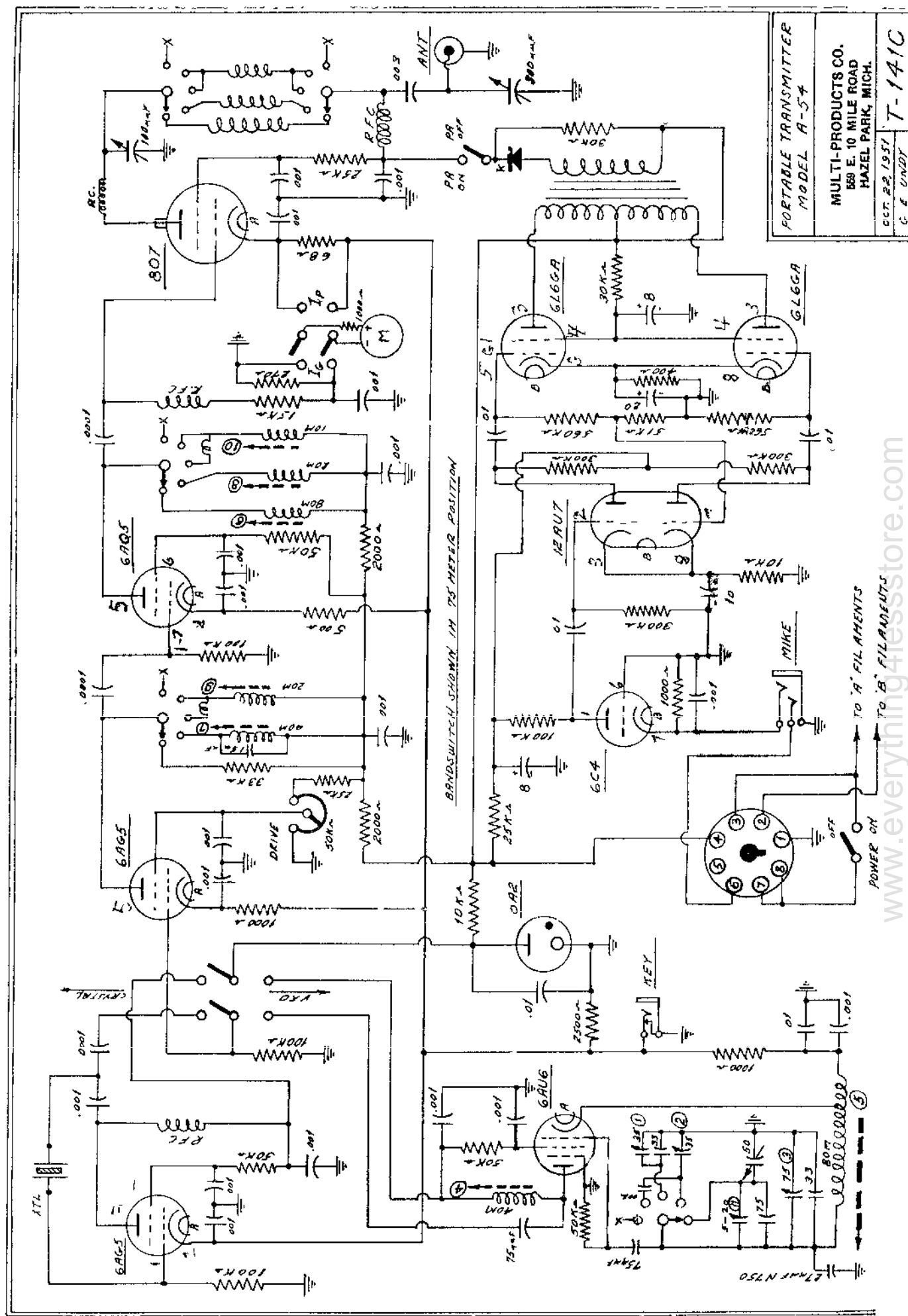
DIAGRAM showing physical layout of tubes and other component parts on the chassis of the Model A-54 and Model A-54H. The extreme top right hand tube is a 6C4 in the Model A-54 and a 6AX7 in the Model A-54H.

The circled numbers above show the location of all calibration and alignment adjusting screws.



MULTI-PRODUCTS CO.  
559 E. TEN MILE RD.  
HAZEL PARK, MICH.

Oct. 20, 1951



PORTABLE TRANSMITTER  
MODEL A-54

MULTI-PRODUCTS CO.  
559 E. 10 MILE ROAD  
HAZEL PARK, MICH.

OCT. 22, 1937  
C. E. UNDY

T-141C